

IN THE SPECIFICATION

Please **amend** paragraph [00018] with the following rewritten paragraph:

The accompanying figures illustrate the present invention. Abbreviations are used as follows:

P1°            H-Lys-Phe-Met-Met-Thr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub> (SEQ ID NO:1)

P1\*            H-Lys-Phe-Met-Met-pThr-Pro-Tyr-Val-Val-Thr-Arg-NH<sub>2</sub> (SEQ ID NO:2)

P1\*°           H-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub> (SEQ ID NO:3)

TAMRA-P1\*° 5-TAMRA-AEEA-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub>  
(SEQ ID NO:4)

TAMRA            5'-(6-carboxytetramethylrhodamine)

AEEA            8-amino-3,6-dioxaoctanoic acid linker

Please **amend** paragraph [00032] with the following rewritten paragraph:

When it is more convenient to use a peptide substrate, the peptide sequence is preferably selected from the active-site loop, e.g. for MKK7 from the JNK1/2/3 active site. For instance, said peptide for MKK7 comprises or is composed of the amino acid sequence H-Lys-Phe-Met-Met-Thr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub>, (SEQ ID NO:1) wherein p means phosphorylated.

Please **amend** paragraph [00035] with the following rewritten paragraph:

Usually, the double phosphorylated ligand is labelled by common techniques, using a luminescent or a radioactive tag or by molecules such as a reporter enzyme or an affinity ligand. Preferably, the ligand is labelled by a fluorescent dye. Particularly, the ligand comprises or is composed of the sequence 5-TAMRA-AEEA-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub>. (SEQ ID NO:4).

Please **amend** paragraph [00036] with the following rewritten paragraph:

In Fig. 1 the indirect assay principle is illustratively shown. The P1° substrate having the amino acid sequence H-Lys-Phe-Met-Met-Thr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub> (SEQ ID NO:1) (p means phosphorylated) becomes phosphorylated at the threonine residue in the presence of ATP and the MKK7 kinase. This double-phosphorylated peptide (ligand) competes with the labelled TAMRA-P1\*° peptide having the sequence 5-TAMRA-AEEA-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub> (SEQ ID NO:4) for binding to the antibody.

Please **amend** paragraph [00043] with the following rewritten paragraph:

In Fig. 3 (ref. Example 2) the binding of the same polyclonal antibody to TAMRA-labelled peptide P1\*° (5 nM) in competition with the peptides P1° (mono-phosphorylated, sequence see above), peptide P1\* (mono-phosphorylated having the sequence H-Lys-Phe-Met-Met-pThr-Pro-Tyr-Val-Val-Thr-Arg-NH<sub>2</sub>) (SEQ ID NO:2) or peptide P1\*° (double phosphorylated, sequence see above) is presented. As can be deduced from the complex formation, only bis-phosphorylated peptide P1\*° is able to compete effectively with the TAMRA-labelled peptide P1\*° for binding to the antibody while the other mono-phosphorylated peptides displace less than 50% of the bound ligand even at high concentrations (up to 1 µM).

Please amend the text at Page 23:

“List of reagents of the MKK7 kinase.....The stock should be aliquoted in 10 µl aliquots and kept at -20°C.” with the following rewritten text:

List of reagents of the MKK7 kinase assay:

List of used JNK1-peptides:

P1° H-Lys-Phe-Met-Met-Thr-Pro-pTyr-Val-Val-Thr-Arg-NH2 (SEQ ID NO:1)

P1\* H-Lys-Phe-Met-Met-pThr-Pro-Tyr-Val-Val-Thr-Arg-NH2 (SEQ ID NO:2)

P1\*° H-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH2 (SEQ ID NO:3)

TAMRA-P1\*° 5-TAMRA-AEEA-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH2  
(SEQ ID NO:4)

Ligand:

TAMRA-P1\*°-Peptide: 5-TAMRA-AEEA-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH2 (SEQ ID NO:4)

Supplier: EVOTEC BioSystems AG, solid-phase peptide synthesis HK-03-65-P1-13; M = 2089 g/mol; MALDI (2092.18)

1mM stock solution in 100% DMSO

The stock should be aliquoted in 10 µl aliquots and kept at -20°C.

5nM working solution.

Competitor:

P1\*°-Peptide: H-Lys-Phe-Met-Met-pThr-Pro-pTyr-Val-Val-Thr-Arg-NH2 (SEQ ID NO:3)

Supplier: EVOTEC BioSystems AG, solid-phase peptide synthesis

HK-03-60-P1-7; M = 1532 g/mol; MALDI (1531.88)

10mM stock solution in 100% DMSO

The stock should be aliquoted in 10 µl aliquots and kept at -20°C.

200µM working solution.

Substrate: MKK7 kinase substrate

P1°-Peptide: H-Lys-Phe-Met-Met-Thr-Pro-pTyr-Val-Val-Thr-Arg-NH<sub>2</sub> (SEQ ID NO:1)

Supplier: EVOTEC BioSystems AG, solid-phase peptide synthesis

HK-03-58-HF; M = 1451 g/mol; MALDI (1453.57)

10mM stock solution in 100% DMSO

The stock should be aliquoted in 10 µl aliquots and kept at -20°C.

100µM working solution.

Please insert after page 31 (i.e., after the claims) the following sequence listing:

SEQUENCE LISTING

<110> Kramer, Joachim

Mander, Thomas

Bethell, Richard

Benson, Neil

Boyd, Helen

Greengrass, Pam

Kinloch, Ross

<120> PROCESS FOR DETECTING SERINE/THREONINE KINASE ACTIVITY

<130> AP33451 070180.0144

<140> 09/923,716

<141> 2001-08-07

<150> 60/224,331

<151> 2000-08-11

<160> 5

<170> FastSEQ for Windows Version 4.0

<210> 1

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<213> Artificial Sequence

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<223> Fluorescent tag (TAMRA) and linker (AEEA)

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<223> Fluorescent tag (TAMRA) and linker (Ahx)

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